

REMARKS

Reconsideration in view of the foregoing amendments and following remarks is respectfully requested.

This is in response to the Office action mailed March 20, 2007. Presently, claims 1-45 are pending, and claims 19-45 withdrawn from consideration. Claims 1-18 stand rejected.

Rejections under 35 U.S.C. 102

In the Office action, claims 1, 9, 12-14 and 16 were rejected as anticipated by Douk et al. (Pub. No. US 2002/0151927 A1). With respect to claim 1, the Examiner points out paragraphs [0017] and [0018] and notes reference numerals 20 (a. corresponding to a tubular guidewire having a proximal end, a distal end, and a lumen), 42 (b. corresponding to a control cable having a proximal end and a distal end disposed in the lumen of the tubular guidewire), and 25 (c. corresponding to a sheathless filter distally coupled to the control cable and proximally coupled to the tubular guidewire.) The Examiner continues to explain that the sheathless filter disclosed by Douk et al. is radially expandable in response to displacement of the control cable relative to the tubular guidewire such that the sheathless filter presents at least a convex primary filter surface to a flow of blood within a blood vessel when introduced thereinto and expanded. It is respectfully submitted, however, that Douk et al. describe reference numeral 42 as a "core wire" rather than a cable, and while reference numeral 25 is taught to be a filter, Douk et al. significantly fail to disclose or suggest that such filter presents "at least a convex primary filter surface to a flow of blood." Douk et al. do, however, teach that the filter 25 should be distally disposed relative to a stenosis treatment site 15, to collect embolic debris which might be generated and preferably includes at least one inlet opening 66; (noting paragraph [0044]. This would suggest that the proximal end of filter 25 would present to a flow of blood; yet Douk et al. appear to show filter 25 with a conical or frustoconical shape (noting **FIG. 5**). Paragraphs [0017] and [0018] fail to teach the shape of the surface presented to a flow of blood. Conical or frustoconical surfaces are

not convex surfaces. Reconsideration and allowance of claim 1 and claims depending therefrom is respectfully requested.

With respect to claim 9, the Examiner points out **FIG. 5** of Douk et al. in identifying disclosure purported to be anticipatory. The Examiner asserts, with respect to **FIG. 5**, that any two intersecting wires show a tubular braided wire framework and that remaining wires are filter mesh. It is respectfully submitted that the two sub-elements of claim 9 might be expected to have some differences, for example material or shape etc. The Examiner is indicating that there is no difference. It is respectfully submitted that in paragraphs [0044] and [0045], Douk et al. disclose optionally interweaving to add radiopaque markers but do not teach co-braiding nitinol. Further, as noted previously, **FIG. 5** shows what appears to be a conical or frustoconical surface including an inlet 66 believed to be presented to a blood flow. It is respectfully submitted that the passages of paragraphs [0017] and [0018] and drawing of **FIG. 5** pointed out by the Examiner are clearly not anticipatory. Reconsideration and allowance of claim 9 is respectfully requested.

With respect to claim 12, paragraph [0051] of Douk et al. was pointed out for disclosing incorporating radiopaque marker bands in adhesive joints securing the filter of **FIG. 5**. However, as noted previously, **FIG. 5** and paragraphs [0017], [0018] and [0051] of Douk et al. do not anticipate a convex primary filter surface presented to a flow of blood. Nor would one of ordinary skill, in possession of such disclosure, have been lead to substitute a convex primary filter surface for the conical or frustoconical surface portion of Douk et al. Reconsideration and allowance of claim 12 is respectfully requested.

With respect to claim 13, the Examiner again points out **FIG. 5** of Douk et al. as also disclosing a distal interior face presenting a concave secondary filter surface to a flow of blood. It is respectfully submitted that **FIG. 5** appears to disclose another distally positioned conical or frustoconical surface and not a distal concave surface. Further, as noted earlier, **FIG. 5** and paragraphs [0017], [0018] and [0051] of Douk et al. do not anticipate a convex primary filter surface presented to a flow of blood. Reconsideration and allowance of claim 13 is respectfully requested.

With respect to claim 14, as noted previously, **FIG. 5** and paragraphs [0017], [0018] and [0051] of Douk et al. do not anticipate a convex primary filter surface presented to a flow of blood. Reconsideration and allowance of claim 14 is respectfully requested.

With respect to claim 16, Douk et al. appears to disclose or teach only a filter which is expandable or collapsible. Selectivity of plural deployed states does not appear to be taught or disclosed in Douk et al. Douk et al. does teach, in another embodiment discussed in paragraph [0019], an arrangement in which a first degree of force collapses a self-expanding filter and a second degree of force disengages a rod and allows the rod to be withdrawn from a patient. Such a teaching would appear opposite to selectively deployable states as being claimed in claim 16. Moreover, as noted previously, **FIG. 5** and paragraphs [0017], [0018] and [0051] of Douk et al. do not anticipate a convex primary filter surface presented to a flow of blood. Reconsideration and allowance of claim 16, as well as claims 1, 9, and 12-14, is respectfully requested.

Rejections under 35 U.S.C. 103

In the Office action, claims 2-5 and 15 were rejected as obvious over Douk et al. As noted earlier, **FIG. 5** and paragraphs [0017], [0018] and [0051] do not teach nor suggest a convex primary filter surface presented to the flow of blood, rather **FIG. 5** shows a conical or frustoconical primary filter surface. Such a surface shape would not lead one of ordinary skill to a convex filter surface. While Douk et al. teaches in paragraph [0019] a stop element in relationship to a different embodiment, it is unclear that such would lead one of ordinary skill to a convex filter surface and a different stop element. Note that the embodiment under discussion in paragraph [0019] of Douk et al. is characterized by additional proximally directed force causing disengagement of a rod from an actuator so that the rod may be withdrawn from a patient. Moreover, Douk et al. indicates that paragraph [0019] is referring to another embodiment than that referred to in paragraphs [0017] and [0018]. Further, the Douk et al. teaching continues toward a teaching that appears to dismantle the mechanism. One of ordinary skill would not be lead to look to such dismantling teachings to find a means to resist displacement, but rather to allow removal of parts of the Douk et al. mechanism.

With respect to claim 15, it is respectfully submitted that the Examiner may have misunderstood or misread claim 15 because claim 15 is directed to outer diameter of the filter prior to deployment. Such diameter is believed to be substantially unrelated to whether a vessel will or will not be damaged upon subsequent deployment. Further, it is respectfully submitted that the Examiner's proposed modification of the maximum diameter of the Douk et al. filter is also substantially unrelated to the diameter of the filter of the present invention prior to deployment. For these reasons, one of ordinary skill would not be lead to modify the maximum expansion diameter of the Douk et al. filter to achieve a diameter prior to deployment of the filter of the present invention. Reconsideration and allowance of claims 2-5 and 15 is respectfully requested.

In the Office action, claims 2-5 were rejected as obvious over Douk et al. in view of Kusleika et al. (US 6,425,815). The Examiner points out stop 40 of Kusleika et al. to prevent over expansion of a filter. Kusleika et al., however, is controlling a filter body system with a proximally oriented opening 56 sufficiently sized to entrain particulate matter. It is unclear that stop 40 of Kusleika et al.'s filter body with proximate opening would be transferable to the Douk et al. filter. Moreover, the Douk et al. filter lacks a convex primary surface presented to the flow of blood. Reconsideration and allowance are respectfully requested.

In the Office action, claims 2-5 were rejected over Douk et al. in view of Seguin et al. (US 6,562,058). The Examiner points out a clamp device of the Seguin et al., **FIGS. 8A-D**, more particularly paired axially constrained grippers 150 and paired axially movable grippers 160. The constrained grippers 150 hold the guidewire and the movable grippers hold the actuating wire. One of ordinary skill would not select such devices, shown in association with a conical or frustoconical faced filter to resist displacement of a control cable relative to a tubular guidewire in order to deal with a convex surfaced filter presenting to a blood flow. If such combination had been made, it still would lack a convex primary filter surface. Reconsideration and allowance are respectfully requested.

In the Office action, claims 6-8, 10 and 11 were rejected as obvious over Douk et al. in view of Greenhalgh (US 6,364,895). The Examiner points out Greenhalgh teaches co-braiding metal and polymer yarn to form filter structures at column 5, lines 25-48. The

Examiner then suggests that it would have been obvious to one of ordinary skill in the art at the time of the invention to substitute the Greenhalgh mesh in the Douk et al. filter. However, such substitution would not have resulted in a convex primary filter surface presented to a flow of blood. Further, the pore sizes of between 20-1500 microns taught by Kusleika et al. at column 4, line 59, are taught for metallic tubular braid, not for a tubular braided wire framework with a filter mesh of multifilament polymer fibers co-braided with wires of the tubular braided wire framework. Reconsideration and allowance of claims 6-8, 10 and 11 is respectfully requested.

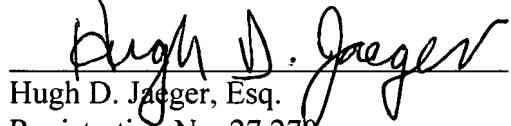
In the Office action claims 17 and 18 were rejected as obvious over Douk et al. in view of Gillick et al. (US 6,383,206). As noted earlier, Douk et al. discloses a frustoconical or conical shape presentment to blood flow not a convex surface. Further, Douk et al. does not appear to disclose or teach more than an open situation and does not appear that resilient flexible members lie generally parallel to a longitudinal axis and then also does not appear to disclose or teach a plurality of selectively deployable states of expansion. Gillick et al. is cited for teaching a filter with a state where blood flow is presented (column 4, lines 5-8). Gillick et al. teaches a sheath-type filter with occlusive properties. One of ordinary skill would not have been lead to the present invention with a convex primary filter surface through the Examiner's proposed combination. Reconsideration and allowance are respectfully requested.

If there are any further issues yet to be resolved to advance the prosecution of this patent application to issue, the Examiner is requested to telephone the undersigned counsel.

Reconsideration and allowance is respectfully requested.

Respectfully submitted,

HUGH D. JAEGER, P.A.


Hugh D. Jaeger, Esq.
Registration No. 27,270
150 Lake Street West, Suite 106
P.O. Box 672
Wayzata, MN 55391-0672
Telephone: 952-475-1880
Facsimile: 952-475-2930

06-11-2007

MSWORD-MYFILES/PLEAD/PL5389